

What is claimed is:

1. A special effect image generation apparatus for processing an image to generate a special effect, comprising:

5 an image conversion means for performing predetermined image conversion to an image signal of the image;

an extraction condition setting means for extracting from the above image an image satisfying a
10 plurality of extraction conditions among luminance extraction conditions based on a luminance signal and/or chroma extraction conditions based on at least a color signal;

a key signal output means for outputting a key
15 signal for setting extraction conditions for the image based on the luminance extraction conditions and/or the chroma extraction conditions; and

a mixer circuit for processing the image to convert the image to a special effect image based on said
20 signal of the image, an output signal of the image conversion means, and the key signal.

2. A special effect image generation apparatus as set forth in claim 1,

further comprising a mask pattern generation
25 means for outputting a mask pattern for masking a region

not to be processed in said image; and

wherein said key signal output means outputs a
key signal to set said extraction conditions for said
image based on said mask pattern in addition to said
5 luminance extraction conditions and/or chroma extraction
conditions.

3. A special effect image generation apparatus as
set forth in claim 1,

further comprising an image conversion setting
10 and processing means for selecting and setting a type of
image conversion to be performed on the image and making
the image conversion means perform the selected and set
image conversion on said image; and

wherein the selection and setting of the type
15 of image conversion in said image conversion setting and
processing means and the setting of said luminance
extraction conditions and/or chroma extraction conditions
are freely and independently performed.

4. A special effect image generation apparatus as
20 set forth in claim 3,

further comprising a mask pattern generation
means for outputting a mask pattern to mask a region not
to be processed in said image; and wherein

said key signal output means outputs a key
25 signal for setting said extraction conditions for said

image based on said mask pattern in addition to said
luminance extraction conditions and/or chroma extraction
conditions; and

the setting and adjustment of the mask pattern
5 generated by said mask pattern generation means, the
selection and setting of the type of image conversion in
said image conversion setting and processing means, and
the setting of said luminance extraction conditions
and/or chroma extraction conditions are freely and
10 independently performed.

5. A special effect image generation apparatus as
set forth in claim 1, further comprising a wave-filtering
and shaping means for filtering and shaping the output
signal of said extraction condition setting means.

15 6. A special effect image generation apparatus as
set forth in claim 1, wherein said image conversion means
reduces the number of gradients of data of said image.

7. A special effect image generation apparatus as
set forth in claim 1, wherein said image conversion means
20 divides said image into blocks of uniform density.

8. A special effect image generation apparatus as
set forth in claim 1, wherein said chroma extraction
conditions are extraction conditions based on a luminance
signal and color difference signal of said image.

25 9. A special effect image generation apparatus as

set forth in claim 1, wherein said chroma extraction
conditions are decided for a two-dimensional region of a
color difference value defined by a color difference
signal of blue and luminance and a color difference
5 signal of red and luminance of said image.

10. A special effect image generation apparatus as
set forth in claim 8, wherein said chroma extraction
conditions are decided for a three-dimensional region of
a color difference value and a luminance value defined by
10 a color difference of a two-dimensional region of said
color difference signal and a luminance value at a
predetermined position in said two-dimensional region.

11. A special effect image generation apparatus as
set forth in claim 1, wherein said extraction condition
15 setting means extracts an image based on a NAM output of
said luminance extraction conditions and/or said chroma
extraction conditions.